Drug Impaired Drivers in Alaska – A Population Based Surveillance Project Proposal

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Abstract

One of the ways in which drug and alcohol use damages the larger society is the impact of use in increasing the number of dead and injured from vehicular crashes caused by or associated with the use of alcohol and/or drugs while driving. Alaska implemented the Drug Recognition Expert (DRE) evaluation program in 2004 as an added effort to reduce the public health impact of drug impaired drivers. This law enforcement program has identified problematic areas of drug impaired drivers that may allow public health practitioners to target specific populations for prevention efforts.

This investigator conducted a limited pilot study in 2007 to characterize and describe drug impaired drivers identified from DRE evaluations in Alaska. This data, collected from January 2004 to July 2007, gave us a small window into the portrait of the impaired driver in Alaska. What still remains unknown is the impact these drug impaired drivers have on traffic safety in terms of morbidity and mortality (unintentional injury, medical care, disability, loss of life, etc.).

DRE evaluations for this time period were conducted on a population of reckless drivers (n=361) who were 82.3% white. The Alaska Native population makes up approximately 15% of the state population but only 5% of this DRE evaluation population. In addition, this population was 63.4% male.

Just under 4% of the DRE evaluations in Alaska were collision evaluations (compared to the national average of 8.7%), however, 71.4% of those evaluations were toxicology positive (compared to the national average of only 30.6%). Of the drug classes identified, depressants were most commonly identified among those who are white and cannabis was most often identified among Alaska Natives. Cannabis (36.8%) was the class most identified among males and depressants (38.5%) was the class most identified among females.

Approximately one-third (30.4%) of all DRE identified drugs, with Lab confirmation, were in the class of depressants followed closely behind by cannabis at 27.0%. The age group most often evaluated was 20-29 years old (34.1%). Almost thirty-four percent (33.8%) of the DRE evaluations in Alaska were poly drug use compared to the national average of just 28.1%. The most common combinations included alcohol, depressants, cannabis, and methamphetamines.

Alaska now uses the expertise of 29 Drug Recognition Expert (DRE) law enforcement officers to help evaluate the impact of driving under the influence of drugs on public safety on our roadways and to assist public health practitioners in identifying effective prevention programs. But the DRE program alone cannot provide all of the information we need for public safety.

It is a critically important topic and we do not have many answers yet because there is no one central database from which we can gather needed information. This proposal is for a population based surveillance project that will synthesize currently collected data into a single statewide database to be maintained in the Department of Health Sciences at UAA. This database will be

used to support future descriptive studies that will clearly describe and characterize the drug impaired driver in Alaska in terms of person, place, time, and related morbidity and mortality.

Project Narrative

Drug abuse impacts morbidity and mortality in a variety of ways. Problems such as homelessness, crime, AIDS, and "driving under the influence" are all compounded by drug abuse. On January 23, 2002, John P. Walters, Director of National Drug Control Policy (ONDCP), released a new study detailing the economic damage illegal drugs inflict on the American economy. The report showed that drugs sapped a staggering $143.4 billion from the U.S. economy in 1998 and projects the loss for 2000 at over $160 billion.

A public health problem gaining the rapid attention of law enforcement, safety officials, and emergency medical services is the increase in the number of dead and injured from vehicular crashes caused by or associated with the use of illegal drugs. It is a major public health problem not well recognized or appreciated by the public health community or the general public. The magnitude of the problem is difficult to comprehend but one might say that too often the consequences of drug abuse are fatal, and that the victims are often our youth.

In comparison with the alcohol literature, relatively little information is available regarding the true incidence and prevalence of illegal drug use in reckless drivers. Almost no information is known for Alaska. Escalating cannabis use, especially among adolescents, presents serious challenges to the field of Public Health in terms of research, prevention, and treatment.

Drugs are detected commonly among those involved in motor vehicle crashes, with studies reporting up to 42% of crash-involved drivers positive for drugs. Cannabis is generally the most common drug detected in crash-involved drivers, followed by benzodiazepines, cocaine, amphetamines and opioids. Polydrug use is common among crash-involved drivers. Studies of impairment indicate an undeniable association between alcohol and driving impairment. There is also evidence that cannabis and depressants increase crash risk.

This investigator conducted a pilot project to describe drug impaired drivers in Alaska identified by DRE law enforcement officers from the inception of the program in January 2004 to July 2007. The DRE officer is trained to identify reckless drivers who are impaired on alcohol and other drugs by a combination of roadside sobriety tests, physiological tests, and the collection of a urine or blood specimen. The biological specimens are then sent to the Alaska State Crime Lab for analysis and confirmation. The experienced DRE officer in Alaska is able to correctly identify a drug impaired driver and the class of drug causing the impairment over 90% of the time.

DRE evaluations occur in Alaska in primarily 3 geographic areas: Anchorage and the Matanuska-Susitna Valley (55%), greater Fairbanks area (22%), and Juneau (7%). The Alaska State Troopers, who have jurisdiction statewide, produced approximately 16% of the DRE evaluations. Within Anchorage, the Anchorage Police Department conducted the most DRE evaluations (40.5%).

This data is collected and maintained in a national DRE database. It provides information on the drug class identified (but not the specific drug) and minimal generic descriptive information of the subject who was evaluated. While this data is extremely important it gives only a portion of the true picture of the drug impaired driver, the risk to public safety, and the resultant morbidity and mortality.

Unintentional injury was the 3rd leading cause of death in Alaska in 2004 (n=333). Of those deaths, 122 (37%) were due to motor vehicle crashes; and of the 122 fatalities, 37% were alcohol related (www.nsc.org). But we do not know what proportion of the crashes and fatalities were drug related. We also do not know other sequelae that occur.

The data that is needed to draw a full comprehensive picture of the drug impaired driver and all related morbidity and mortality is available but it currently resides in many distinct and separate databases such as those at local law enforcement agencies, Alaska State Department of Highway Safety, the Alaska State Crime Laboratory, the Alaska State Medical Examiner's Office, the Alaska State Troopers, and others. Unless the data is part of an ongoing criminal investigation, all data is in the public domain and accessible. In addition, much information available is contained within hardcopy investigative reports and will need to be abstracted for database inclusion.

Impact on the Discipline, University, and Larger Community

To prevent drug-related crashes, law enforcement officers must be able to detect drivers under-the-influence of drugs as they routinely do now with alcohol detection devices. This is now partially supported by the DRE program in Alaska. This project will provide additional support to law enforcement, those responsible for traffic safety, and public health practitioners by identifying which populations or subgroups are most or least affected by illegal drug use. This will allow for the most efficient allocation of resources and the targeting of these particular segments of the population for intervention and prevention programs.

Such data can be of great value to law enforcement agencies whose task it is to protect the safety of the general public; and to public health administrators and educators in assessing the scope of our current drug problems and targeting education programs as preventive measures.

It is important that health economists, public health professionals, physicians, and our law enforcement agencies recognize that the next major step in improving the general health, safety, and well-being of the U.S. population should be largely behavioral rather than solely medical.

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